

1. (Amended) An access controlling method used in an optical storage carrier drive, the optical storage carrier drive comprising a rotative mechanism for rotating an optical storage carrier, a data access device for recording data to a track formed on the optical storage carrier, and a look-up table, the track comprising a plurality of data units, each data unit capable of passing by the data access device for recording data thereon, the plurality of data units being sequentially divided into at least two data blocks including a first data block and a second data block, the look-up table respectively providing a constant linear velocity applicable to each data block, the method comprising:
- selecting a targeted data unit from the plurality of data units;
- determining a targeted data block within which the targeted data unit is located;
- utilizing the lookup table to obtain a targeted constant linear velocity corresponding to the targeted data block;
- controlling the rotative mechanism to provide the targeted constant linear velocity for the targeted data unit; and
- recording data to the targeted data unit by moving the data access device to the targeted data unit,
- wherein each data block includes at least a first and a second data unit, and angular velocity of the rotative mechanism corresponding to the first data unit is not equal to angular velocity of the rotative mechanism corresponding to the second data unit in order to maintain the constant linear velocity within the associated data block.
3. (Amended) The controlling method of claim 1 wherein the first data block is positioned farther away from a center of the storage carrier than the second data block, the constant linear velocity

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corresponding to the first data block being higher than the constant linear velocity corresponding to the second data block.

23 5 8. (Amended) The controlling method of claim 1 wherein the rotative mechanism of the optical storage carrier drive comprises a rotational speed controller capable of maintaining the constant linear velocity of the rotative mechanism.

10 10. (Amended) An optical storage carrier drive for recording data to a track formed on an optical storage carrier, the track comprising a plurality of data units, and the plurality of data units being divided into at least two data blocks including a first data block and a second data block, the carrier drive comprising:

15 94 a rotative mechanism for rotating the optical storage carrier; a data access device for recording data to the track of the optical storage carrier, the data units capable of passing by the data access device at a constant linear velocity; and

20 a control device for controlling operations of the optical storage carrier drive, the control device having a look-up table which provides a respective constant linear velocity applicable to each data block;

25 wherein when the control device records data to a targeted data unit, the control device utilizes the look-up table to obtain a targeted constant linear velocity corresponding to a targeted data block within which the targeted data unit is located, controls the rotative mechanism to provide the constant linear velocity for the targeted data unit, and then  
30 records data into the targeted data unit by moving the data access device to the targeted data unit; and

wherein each data block includes at least a first and a second

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5 data unit, and angular velocity of the rotative mechanism corresponding to the first data unit is not equal to angular velocity of the rotative mechanism corresponding to the second data unit in order to maintain the constant linear velocity within the associated data block.

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10 12. (Amended) The optical storage carrier drive of claim 10 wherein the first data block is positioned farther away from a center of the optical storage carrier than the second data block, the constant linear velocity corresponding to the first data block being larger than the constant linear velocity corresponding to the second data block.

15 17. (Amended) The optical storage carrier drive of claim 10 wherein the rotative mechanism comprises a rotational speed controller capable of maintaining the constant linear velocity of the rotative mechanism.

20 18. (Amended) The optical storage carrier drive of claim 10 wherein each data unit comprises an addressing index for indexing the data units on the track, the look-up table further stores a valid address range corresponding to each data block, and the optical storage carrier drive searches the addressing index of the targeted data unit from the valid address range in order to determine the targeted data block.

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Add the following claim:

30 19. An optical storage carrier drive for practicing the method of claim 1.